



A symposium on applications and enhancements to the TOUGH codes for multiphase fluid, heat, and chemical transport will be held at the Lawrence Berkeley National Laboratory (LBNL), September 17–19, 2012. The TOUGH Symposium 2012 consists of oral and poster presentations, with proceedings published online, and includes a welcome reception and banquet dinner featuring an invited talk. Depending on demand, Short Courses on select TOUGH codes will be offered immediately preceding and/or following the symposium.

Selected papers will be submitted for inclusion in special issues of major scientific journals.

Symposium Purpose

The purpose of the symposium is to bring together users of the TOUGH family of codes (which includes TOUGH2, iTOUGH2, TMVOC, TOUGH+, TOUGHREACT, TOUGH-FLAC, TOUGH2-MP, and more) for an open exchange on applications and recent code enhancements. Papers are solicited in all areas of TOUGH applications, including:

- Modeling of coupled (thermal, hydrological, chemical, mechanical, biological, geophysical) processes in porous and fractured geologic media
- Geologic carbon dioxide storage and utilization
- Geothermal reservoir engineering
- Performance assessment of nuclear waste repositories
- Hydrocarbon recovery, including methane hydrates
- Critical zone hydrology, including vadose zone – atmosphere interaction
- Fate and transport of volatile organic compounds
- Reactive transport modeling for environmental remediation
- Water resources management, including surface water – groundwater interaction
- Design and analysis of laboratory and field experiments
- Automatic model calibration and uncertainty analysis
- Code verification and validation
- Enhanced process capabilities and user features
- Numerical methods, grid generation, and parallel computing

**Sept 17–19,
2012**

Important Dates:

Abstract (1 page)
May 4, 2012

Notification to Authors
May 18, 2012

Paper Submission
(up to 8 pages)
July 13, 2012

Reception
Sept 16, 2012

Symposium
Sept 17–19, 2012

Training Courses
Sept 12–14, 2012
Sept 20–21, 2012

Submit Abstract Online to:

[http://esd.lbl.gov/research/
projects/tough/events/
symposia/toughsymposium12/](http://esd.lbl.gov/research/projects/tough/events/symposia/toughsymposium12/)

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